REMARKS

Status of the Claims

- Claims 1-25 are pending in the application.
- Claims 1-5 and 12-22 are withdrawn from consideration.
- Claims 6-11 and 23-25 are rejected by the Examiner.
- Claims 6, 9, 23, and 24 are amended by Applicant.

Claim Rejections Pursuant to 35 U.S.C. §102

Claims 6-8 stand rejected pursuant to 35 U.S.C. §102(e) as being anticipated by US Pat Publication No. 2001/0022558 to Karr. Applicant respectfully traverses the rejection.

Karr discloses:

"A location system is disclosed for commercial wireless telecommunication infrastructures. The system is an end-to-end solution having one or more location centers for outputting requested locations of commercially available handsets or mobile stations (MS) based on, e.g., CDMA, AMPS, NAMPS or TDMA communication standards, for processing both local MS location requests and more global MS location requests via, e.g., Internet communication between a distributed network of location centers. The system uses a plurality of MS locating technologies including those based on: (1) two-way TOA and TDOA; (2) pattern recognition; (3) distributed antenna provisioning; and (4) supplemental information from various types of very low cost non-infrastructure base stations for communicating via a typical commercial wireless base station infrastructure or a public telephone switching network." (Abstract)

Amended Claim 6 recites, in relevant part:

"A subscriber handheld mobile telephone unit for use in a wireless communications network, the handheld mobile telephone unit comprising;
an operating system,...;
call quality data components..., and
a location system, comprising hardware and software that determine a location of the handheld mobile unit in compliance with enhanced 911 ("E911") requirements, wherein the location system within the handheld mobile telephone unit carried by the subscriber:
receives a query originating from a mobile switch center which communicates with a base station, wherein the query includes a request for call data and location data...; and
transmits the location data and the call quality metric to the mobile switch center in response to the request...".

Applicant finds support for the amendment in paragraph 0020 of the as-filed specification. Claim 6 recites a subscriber handheld mobile telephone unit that includes an operating system, call quality data components, and a location system. As Claim 6 indicates, the location system is within the subscriber handheld mobile telephone unit.

The present Office Action dated 8/30/2006, page 4, indicates that the Claim 6 element of a location system, is analogous to the "location unit" of Karr. Applicant respectfully disagrees.

Karr defines a location unit in many ways, but Karr never defines a location unit as a location system, located within a subscriber handheld mobile telephone unit that functions to provide location information from the device itself while the subscriber carries it. In general, the subscriber mobile stations of Karr do not have location devices inside the subscriber mobile units themselves. Instead, Karr uses other means, such as time of arrival and supplementary information to find the location of the target mobile station (MS). These location means are outside of the subscriber mobile station itself.

For example, Karr defines a location unit in paragraphs 0088, 0768, and 0769. In paragraph 0088:

> " [0088] (3.2) As used herein, the term "mobile station" (equivalently, MS) refers to a wireless device that is at least a transmitting device, and in most cases is also a wireless receiving device, such as a portable radio telephony handset. Note that in some contexts herein instead or in addition to MS, the following terms are also used: "personal station" (PS), and "location unit" (LU). In general, these terms may be considered synonymous. However, the later two terms may be used when referring to reduced functionality communication devices in comparison to a typical digital wireless mobile telephone."

Thus, for example, in paragraph 0088, a "Location Unit" (LU) is a mobile station (MS) that has reduced mobile phone functionality as compared to a typical mobile station or typical wireless mobile phone. Applicant submits that since a typical subscriber digital wireless mobile telephone does not include an internal location system to determine its own location, and since Karr defines a location unit as a mobile station that has less functionality than a typical subscriber digital wireless mobile telephone, then the location unit described in Karr cannot be the same subscriber handheld mobile telephone unit recited in Claim 6.

In another example, Karr defines what a "location unit" is in paragraph 0769 while describing a mobile base station.

"Mobile Base Station Location Subsystem Description

[0768] Mobile Base Station Subsystem Introduction

[0769] Any collection of mobile electronics (denoted mobile location unit) that is able to both *estimate a location of a target MS 140* and communicate with the base station network may be utilized by the present invention to more accurately locate *the target MS*. Such mobile location units may provide greater target MS location accuracy by, for example, *homing in on the target MS and by transmitting additional MS location information to the location center 142*. There are a number of embodiments for such a mobile location unit contemplated by the present invention. *For example, in a minimal version, such the electronics of the mobile location unit may be little more than an onboard MS 140, a sectored/directional antenna and a controller for communicating between them*. Thus, the onboard MS is used to communicate with the location center 142 and possibly the target MS 140, while the antenna monitors signals for homing in on the target MS 140. In an enhanced version of the mobile location unit, a GPS receiver may also be incorporated so that the location of the mobile location unit may be determined and consequently *an estimate of the location of the target MS may also be determined. However, such a mobile location unit is unlikely to be able to determine substantially more than a direction of the target MS 140 via the sectored/directional antenna without further base station infrastructure cooperation in, for example, determining the transmission power level of the target MS or varying this power level. Thus, if the target MS or the mobile location unit leaves the coverage area 120 or resides in a poor communication area, it may be difficult to accurately determine where the target MS is located*. None-the-less, such mobile location units may be sufficient for many situations, and in fact the present invention contemplates their use. However, in cases where direct communication with the target MS is desired without constant contact with the base station infrastructure, *the present invention includes a mobile location unit that is also a scaled down version of a base station 122*. Thus, given that such a mobile base station or MBS 148 includes at least an onboard MS 140, a sectored/directional antenna, a GPS receiver, a scaled down base station 122 and sufficient components (including a controller) for integrating the capabilities of these devices, *an enhanced autonomous MS mobile location system can be provided that can be effectively used in, for example, emergency vehicles, air planes and boats. Accordingly, the description that follows below describes an embodiment of an MBS 148 having the above mentioned components and capabilities for use in a vehicle*."

Thus, Karr indicates that a location unit may be a device that can "estimate a location of a *target* MS 140 and communicate with the base station network may be utilized by the

present invention to more accurately locate the target MS." Thus, the location unit is not the target MS (subscriber handheld mobile telephone unit) itself.

Also, Karr states that "Such mobile location units may provide greater target MS location accuracy by, for example, homing in on the target MS and by transmitting additional MS location information to the location center 142." Thus, the location unit is not the target MS (subscriber handheld mobile telephone unit) itself; instead, the location unit is a separate device which is used to help location a different mobile unit which is the target mobile station.

In another example, Karr states: "For example, in a minimal version, such the electronics of the mobile location unit may be little more than an onboard MS 140, a sectored/directional antenna and a controller for communicating between them.." Thus, the location unit is a combination three things: a mobile station, a separate directional antenna, and a communication controller to interconnect the MS and the separate directional antenna. Thus, the location unit is not the target MS (subscriber handheld mobile telephone unit) itself; instead it is an interconnection of three separate units which includes a directional antenna.

In another embodiment of a location unit, Karr states: "In an enhanced version of the mobile location unit, a GPS receiver may also be incorporated so that the location of the mobile location unit may be determined and consequently an estimate of the location of the target MS may also be determined. However, such a mobile location unit is unlikely to be able to determine substantially more than a direction of the target MS 140..." Thus, this version of a location unit still only produces an estimate of the location of the target subscriber mobile station because the location unit is not the MS (subscriber handheld mobile telephone unit) itself; instead, it is a device which supplies supplemental location information useful to help determine where the MS unit is located.

In yet another embodiment, Karr discloses a base station as a location unit. Karr states "...the present invention includes a mobile location unit that is also a scaled down version of a base station 122." Thus, the location unit is not the target MS (subscriber handheld mobile telephone unit) itself; instead it is a base unit.

Applicant submits that since Karr does not disclose a subscriber handheld mobile telephone unit carried by a subscriber that can has an internal location system, then the disclosure of Karr also cannot disclose that the functionality of the location system inside the

handheld unit "receives a query originating from a mobile switch center which communicates with a base station, wherein the query includes a request for call data and location data…; and transmits the location data and the call quality metric to the mobile switch center in response to the request…" as recited in Claim 6.

Accordingly, Applicant respectfully requests withdrawal of the 35 U.S.C §102(e) rejection of Claims 6-8 because several elements of Claim 6 are not disclosed and thus amended Claim 6 patentably defines over the cited art.

Claim Rejections Pursuant to 35 U.S.C. §103 (a)

Claims 9 and 23-25 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Published PCT International Application WO 99/12228 to Watson in view of U.S. Patent No. 6,970,702 to Martin. Applicant respectfully traverses the rejection.

Watson discloses an apparatus and methods for testing a wireless service provider network through a virtual subscriber system. In one aspect of this invention, a method for testing a wireless service provider network generally comprises the steps of initiating outbound call attempts under control of a master to multiple automatic, mobile responders, receiving calls at least some of the responders, monitoring parameters relating to the wireless service provider network and transmitting information indicative of those parameters to the master. (Abstract)

Along with Figure 2, Watson further teaches a call simulator 40 and a call responder 42. Regarding the call responder 42, Watson teaches that the responder unit 42 is under the control of the master unit (call simulator) 40 and is placed in vehicles under the remote control of the master. As stated on page 8, lines 3-7:

> "In the preferred embodiment, the responder units 42 operate remotely under control of the master 40. Most preferably, numerous responders 42 are provided in separate vehicles or locations throughout the service area, preferably in separate vehicles, so as to provide data to the master 40 and analyzer 44 under remote control from the master 40." (page 8, lines 3-7).

Further, Watson teaches:

> "Generally, the responder 42 is preferably located within a vehicle, most preferably a vehicle which moves through a relatively large geographic area within the wireless service provider region. Examples of vehicles preferably utilized with the methods of the system include: postal or public transit vehicles (such as those that cover regular,

> thorough routes), delivery vehicles (such as those that cover regular routes which vary somewhat), taxis or other wireless service provider vehicles (such as those which cover random routes and sometimes go into and out of the service area). Alternatively, the responder 42 may be placed at a fixed location." (page 8, lines 22-30.)

Figure 4 of Watson depicts that the responder 42 is designed for use in a vehicle trunk (See Figure 4 and page 10, lines 8-10.) In viewing Figure 4, it becomes clear to one of skill in the art that the responder unit is not intended for direct subscriber use because the keyboard of the telephone component inside the responder 42 is inaccessible when the unit is assembled and installed in a vehicle for operation. Also, Figure 4 depicts that an internally installed mobile telephone is positioned in a first compartment 94 and a separate responder electronics compartment 96 exists for the location determination electronics, which may optionally contain a global positioning system board (page 10, lines 17-25.). Thus, the mobile telephone and GPS equipment are separate items.

Applicant concludes that Watson teaches that a call simulator 40 acts as a master unit by connecting to the PSTN to gain access to a wireless network in order to access multiple responder units 42. The responder units, when placed into operation, permit no user access to act as a subscriber handheld mobile unit because they are normally large in size, sealed, and designed for use in a vehicle in a location such as a trunk. Also, the responder unit 42 has a separate global positioning system electronics board that is external to the mobile telephone unit.

Applicant amends independent Claims 9 and 23 to include the feature that the location system is integral to the subscriber handheld mobile telephone telephone unit as depicted in Figure 4 and described in paragraph 0027 of Applicant's specification. Claims 9 and 23 are also amended to include the feature that location information is the location of the handheld mobile telephone unit itself as it is hand-carried by the subscriber. Applicant finds support for this amendment in paragraph 0020 and Figure 1 of Applicant's Specification.

Applicant notes that the responder unit 42 of Watson is inaccessible to a subscriber to carry around because it is located in a vehicle. Thus, a subscriber does not carry the responder unit 42 of Watson around in his hand. The user hand controls of the mobile phone 48 inside the closed responder unit 42 are inaccessible to physical subscriber manipulation per Watson's Figure 4. Thus, Watson does not teach or suggest that a subscriber hand-carries the

responder because the responder is transported in a vehicle when in operation and the controls of the mobile phone are inaccessible to a subscriber.

Also, as shown in Figure 4 of Watson, within the responder 42 includes a global positioning daughter board that is separate from the mobile phone 48. Thus, the global positioning location device is located outside of the mobile phone 48 and is not integral to the subscriber handheld mobile telephone unit as in amended Claims 9 and 23. Thus, Watson does not teach that the location system is internal to the handheld mobile telephone unit as recited in amended Claims 9 and 23.

Martin teaches a system for and method of cellular telephone system monitoring includes a cellular switch which is remotely accessed and placed in a call monitor mode. A GPS receiver is connected to a mobile telephone via an interface unit. Call performance information (e.g., signal strength, BER and call events) are recorded at the switch and downloaded to a remote computer that includes a display. GPS location information is transmitted by the mobile telephone and received by the remote computer via the switch. The computer receives and stores the recorded call and GPS information and graphically displays this information, along with a map indicating the location of the mobile telephone. Preferably, the call information is first parsed, converted and/or scaled to conform to a standard file format. (Abstract).

Also, Martin teaches, in Figure 2, that the mobile telephone 14 is separate from the GPS equipment and is interconnected using an external interface unit 18.

Applicant notes that neither Watson nor Martin, considered separately or considered in combination, teach or suggest a subscriber handheld mobile telephone unit that is hand-carried by a subscriber and that integrally includes a location system.

The present Office Action dated 8/30/06 on page 6 cites Watson page 11, lines 15-28 to teach the Claim 9 element of "accessing the server to retrieve the call data, the location data, and the links". Applicant respectfully disagrees that Watson teaches this element.

Watson on page 11, line 15-28 describes a block diagram of the responder electronics. Applicant respectfully submits that the responder, which the Office Action equates to the subscriber handheld mobile telephone unit cannot also be the server that is accessed to retrieve call data, location data, and links as recited in Claim 9. Thus, Watson fails to teach or

suggest the Claim 9 element of "accessing the server to retrieve the call data, the location data, and the links" on page 11, lines 15-28.

Since the combination of Watson and Martin does not teach all of the elements of amended independent Claims 9 and 23, then Watson and Martin cannot render obvious these amended claims under 35 U.S.C. §103(a) and MPEP §2143.03. Specifically, the combination of Watson and Martin fail to disclose a wireless communications performance monitoring system that includes a subscriber hand-carrying a subscriber handheld mobile telephone unit having an integral location system. Applicant respectfully requests withdrawal of the 35 U.S.C §103(a) rejection of Claims 9 and 23-25 because these claims patentably define over the cited art.

Claims 10 and 11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Published PCT International Application WO 99/12228 to Watson in view of U.S. Patent No. 6,970,702 to Martin and in further view of U.S. Patent No. 6,741,843 to Kalliokulju. Applicant respectfully traverses the rejection.

Kalliokulju teaches a method and arrangement by means of which a mobile station operating in a cellular network measures and indicates the field strength of a signal sent by a base station. From the measured signal it is calculated a virtual field strength (Pvr) on the basis of which it is determined whether the desired service can be used at that field strength. (Abstract).

Applicant submits that, like Watson and Martin, Kalliokulju fails to teach at least a wireless communications performance monitoring system that includes a subscriber hand-carrying a subscriber handheld mobile telephone unit having an integral location system. Thus, the combination of Watson, Martin, and Kalliokulju cannot render independent Claim 9 or Claims 10 and 11, which depend on Claim 9, obvious under 35 U.S.C. §103(a) according to MPEP §2143.03. Applicant respectfully requests withdrawal of the 35 U.S.C. §103(a) rejection of Claims 10 and 11.

Conclusion

Applicant respectfully requests reconsideration of all pending claims in light of the arguments and amendments provided above.

Respectfully Submitted,

Date: November 14, 2006

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